Tying Transportation Improvements, Future Land Use, Access Management and Zoning Regulations Together for Successful Implementation

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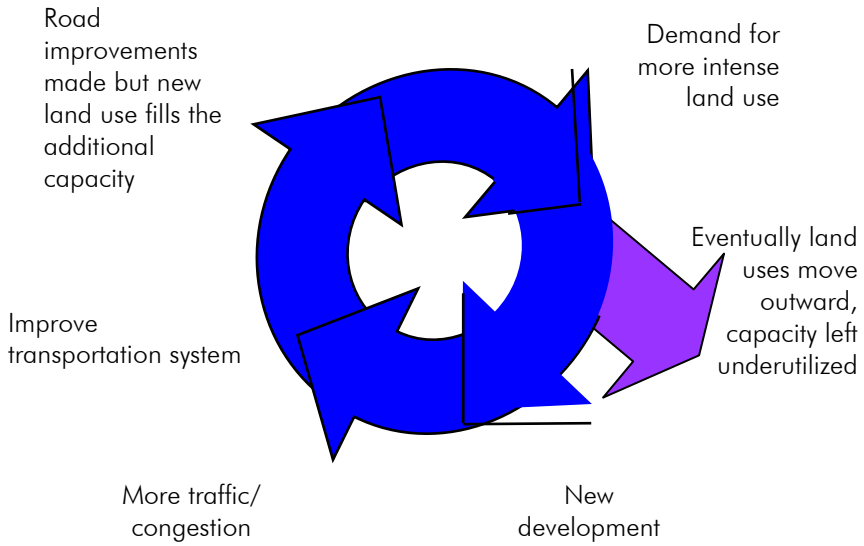
The need for transportation improvements is directly tied to traffic generated by changes in types of uses and the intensity of uses in a community. The development of new or more intense uses creates traffic and, depending on the capacity of the existing road system, congestion. This leads to the need for road improvements. These improvements provide additional road capacity, attracting additional development. As development fills in, demand is generated for more intense land uses. The change in land use mix and traffic conditions become less desirable and some land uses decide to move elsewhere. The relocation of land uses can lead to road capacity being left underutilized and the cycle continues.

So, how can this cycle be changed? How we plan our communities' future land uses is the starting point.

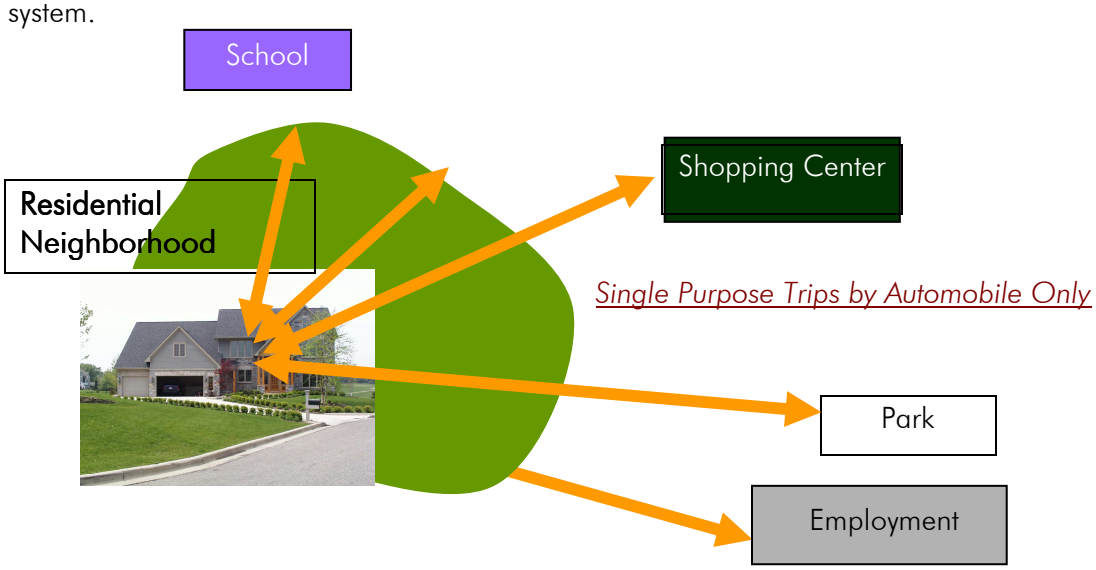


Future Land Use

A community plans for changes to its future land uses through its master plan. How land develops influences the transportation options available to a community (motorized, non-motorized, transit). The types and density of various uses will have a direct impact on traffic volumes along various roads, but often there is little regard given to this relationship. This is especially true in the Midwest, where land use decisions are made at the local level, transportation decisions are usually made by county and state agencies, and there is little coordination between the lower and upper tiers of government. In parts of the country where regional planning is stronger, there is a greater ability to coordinate land use and transportation

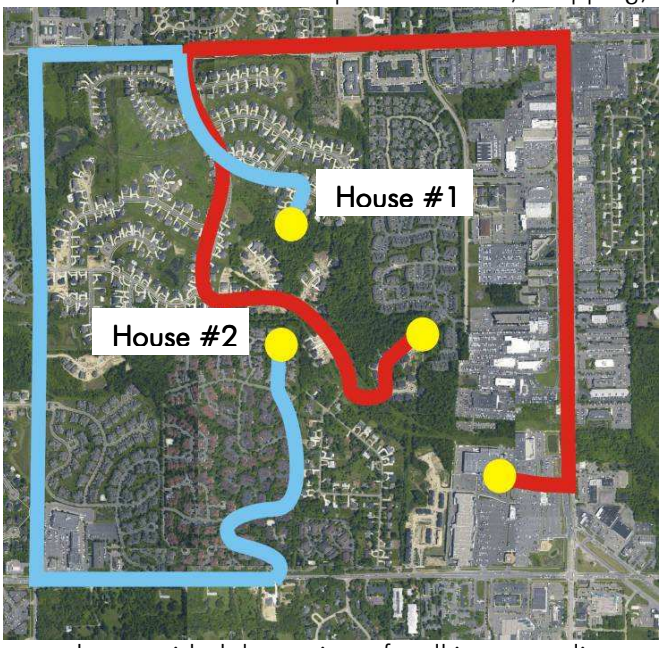
decisions. Land use decisions that can have a significant impact on the traffic accommodated by the road system include:

- Mixed or isolated uses/densities. Mixed use developments consisting of residential, commercial, institutional and open space uses allow for the possibility of a person living close to their work, creating the ability to walk or bike to work. The availability of a range of shopping, restaurants, and public uses (e.g. post office, library, municipal offices) create the ability for even greater non-motorized transportation options. If the greatest possible mix of uses is allowed and is developed at a high density, there is also a possibility of a reduction in the number of trips taken by automobiles and the traffic volumes on the road system.



Conversely, as depicted above, isolated uses require the use of vehicles and generate more traffic since there is a greater distance between residents and their places of work, shopping, schools, parks and institutional uses (e.g. post office or municipal office).

- Arrangement of Uses and Roads. The arrangement of land uses and the layout of the road system can have a profound effect on the number of automobile trips and the length of those trips. The figure to the right illustrates a community that has permitted numerous cul-de-sacs. In this case, residents in House #2 must travel a long distance to visit their friends in House #2. Had the community required a grid street layout, the residents would have been able to travel the short distance between the houses. A comprehensive pathway system would have also provided the option of walking or cycling.



- Densities to support or not support transit. In order for transit to be viable, the most intensive land uses need to be put along corridors where transportation improvements, including transit, are planned. For example, higher density housing should be directed to locations where residents can walk to catch a bus, train or other mode of transit. As noted above, this can only be achieved if land use planning and transportation planning are integrated.

- Consideration of road capacity in planning. Available or planned road capacity should be considered when deciding where to direct growth, since different types of land uses will generate different traffic volumes. In the past, communities made decisions on where different types of development would be located with little regard to road capacity. This sometimes led to increased traffic which could not be accommodated by existing roads, resulting in the need for extensive and costly road improvements. At the same time, county and state road agencies were planning long-range transportation projects primarily in response to a community's land use plans, employment projections and housing forecasts. Any of these documents can be changed by the community, sometimes without regard to the impact on existing or planned road improvements.

Recently, there has been increased cooperation between jurisdictions and agencies when carrying out land use and transportation planning. A greater emphasis is being placed on planning development areas so people have housing options closer to work shopping and entertainment. Incentives are sometime implemented to encourage shared trips (e.g. dedicated highway lanes for vehicles with more than one passenger) or shorter trips (e.g. requiring a grid system of roads).

There also is recognition that one community's planning decisions will potentially impact other communities along the same road corridor. In such cases, a multi-jurisdictional corridor plan might be prepared that considers: future land uses, a regional non-motorized transportation plan, access management standards, and road improvements.

Access Management

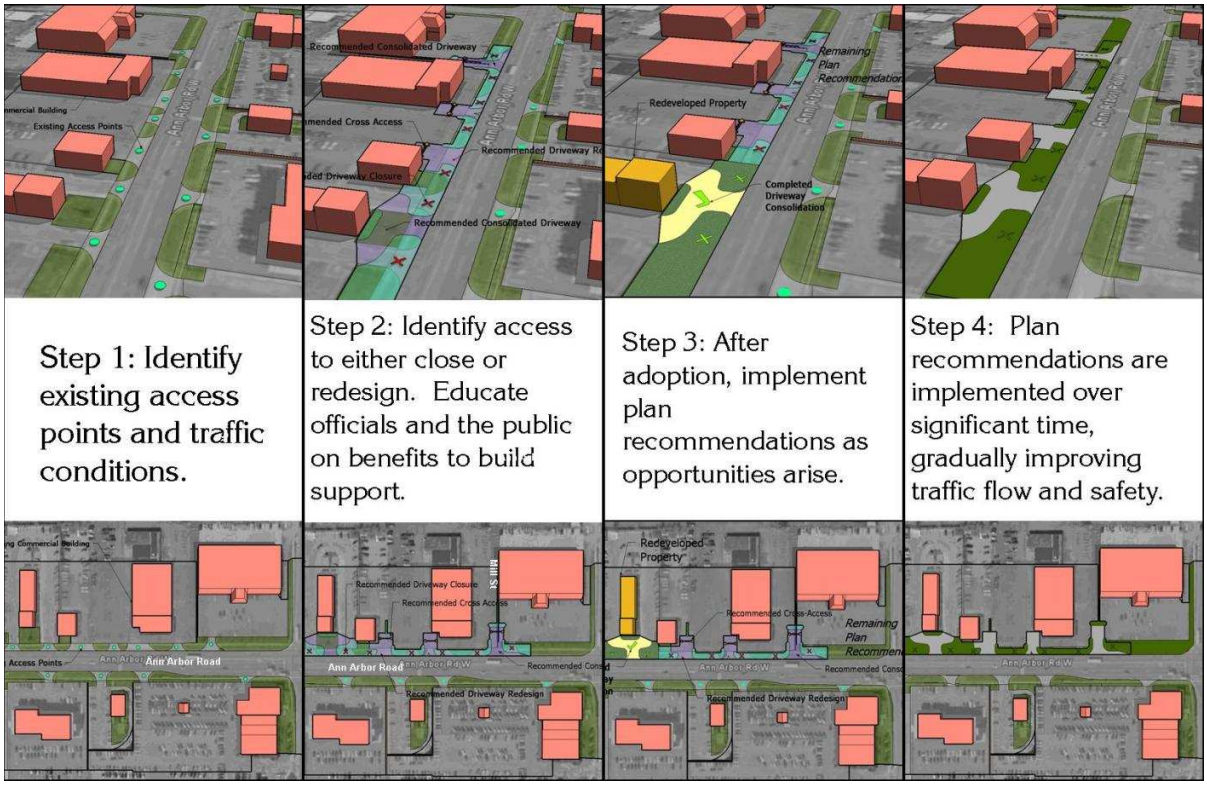
Access management can help preserve the capacity of the road system, thereby reducing or eliminating the need for costly road improvements. This is particularly important when public funds for road projects are limited or when there is interest in shifting funds to other types of transportation facilities (e.g. non-motorized, transit).

The key components of most access management programs are:

- An access management plan that is adopted as part of the community's master plan or as a sub-area plan. The access management plan provides specific access recommendations along a corridor based on a review of existing conditions and identifying the best practices (through research and application) to address them.
- An access management ordinance that includes standards for a specific corridor, for all main roads, or throughout the community. An overlay zoning district is placed over the existing zoning regulations for all parcels addressed by the access management plan. For example, if the current zoning is commercial, the permitted commercial uses, the dimensional standards (setbacks, height, etc.) and other regulations would still apply, but the access regulations of the overlay district would also apply.

- Application of the access management standards through development reviews. When opportunities arise, usually through site plan review or subdivision of land, the recommended standards are applied. Opportunities to affect existing access include:
    - When a site is redeveloped;
    - When Infill development occurs;
    - Where this is a change of use (e.g. residential to commercial);
    - Where a change of business occurs and the trips generated increases (i.e. medical office to shopping center);
    - When there is a significant expansion of use; and
    - During road reconstruction or improvement projects

The use of graphics and visuals during the preparation of an access management plan and regulations can help gain the commitment of decision makers and property owners when implementing an access management plan. The following example shows how an access management plan is prepared and how changes to the number and configuration of driveways can have a significant impact on the corridor.



Zoning Regulations

Most communities include access management standards in their zoning ordinance, although sometimes they are included in another code. If the standards are included in the zoning ordinance they may be part of an overlay zoning district, a separate access article, or within the site plan standards. An access management overlay district typically adds special access management requirements to existing zoning districts located along designated corridors. This approach has the advantage of being applied as needed in specified areas to address or

prevent access problems. Often, the specified area will be the properties identified in the access management plan.

A zoning ordinance may include access management requirements that will apply throughout the community. This approach helps limit the creation of access problems when development or lot creation occurs on areas not addressed by the access management plan. The community-wide access management requirements will usually deal with:

- driveway spacing
- spacing from intersections
- driveway off-sets
- shared access, frontage roads, service drives
- situations where traffic impact studies are required

The zoning regulations will need to include options for applying the access management regulations to nonconforming sites or sites which, because of their characteristics, can not conform to the regulations. This might include allowing modifications by the Planning Commission or variances by the ZBA.

Successful Implementation

The effective implementation of an access management plan can take a long time. Where a major road project is being carried out, the recommended access improvements will often be completed for all properties along the road. However, if the access management improvements are implemented on a site-by-site basis a much longer timeframe will apply.

Successful implementation of access management requires on-going communication and coordination between the partners (local, county and state). This is essential to ensure that master planning, transportation planning, zoning and access management stay on same track. A municipality's preparation of its land use master plan should include consultation with other communities and agencies to help ensure that transportation facilities are adequate to accommodate new growth and to help identify any necessary improvements (and who will be responsible for funding and construction). Likewise, zoning and development applications should be considered from the same viewpoint.

Maintaining public and agency support for the implementation of the access management plan and regulations can be a challenge. If multiple jurisdictions have been involved in preparing the access management plan, intergovernmental agreements may be used to ensure that the plan is to be adopted by each municipality, and the county and state road agencies. These agreements may also be used to specify the circulation of planning applications for review by all affected bodies and this can help ensure that the plan's recommendations and the zoning ordinance's regulations are implemented.

The establishing of a corridor management committee which oversees and monitors implementation of access management requirements is another possible option for ensuring implementation. Also, 'seed' money provided to one or more property owner by the municipality or road agency can be used to implement access improvements and demonstrate the benefits to other property owners. This may encourage other owners to carry out recommended improvements to their properties. Training refreshers for elected officials, planning commissions and zoning boards of appeals can be helpful reminders of the plan's

recommendations, the zoning ordinance's access management requirements and the roles of these bodies in ensuring implementation. This is especially important when members of these groups change.

It may also be helpful to prepare a checklist that can be used by staff, the zoning administrator or whoever receives development applications and discusses procedures with potential applicants. The checklist can help ensure that the access management plan and access regulations are implemented on an on-gong basis and, when applicable, will help ensure that other communities and agencies are consulted. The checklist might include the following questions:

- ❑ Is the subject site located within the Corridor Access Management Plan study area?
- ❑ Has the most recent plan been submitted to the DOT contact person for their review and comments?
- ❑ Has the applicant been made aware of the special requirements and standards?
- ❑ Is the site within an area where specific access recommendations were provided in the Corridor Access Management Plan? If so, provide the applicant with a copy.
- ❑ Does the site plan or submittal illustrate all of the additional information on other existing access points and adjacent lot configurations so compliance with the standards can be determined?
- ❑ Can the site meet the spacing standards between access points?
- ❑ Is the number of access points the minimum needed to provide reasonable access to the site?
- ❑ Is there a potential to provide an alternative, shared access, system?
- ❑ Is the access point properly aligned with, or spaced from, existing driveways or the location where driveways can be expected in the future?
- ❑ Has information on sight distance been provided?
- ❑ Is there a need for a traffic impact study to evaluate the impacts and determine if changes to the site design or road system are needed?
- ❑ Should other communities along the corridor be informed of the proposal (i.e. is the project large enough that it will have a major impact)?
- ❑ Is there a reason to request a meeting with the DOT to discuss and address access issues prior to review by the Planning Commission?